

REMARKS

Affirmation of Election of the Invention of Group I

The election, without traverse, to prosecute the invention of group I, claims 1-9, 15-21 and 27 is affirmed.

Changes to the Specification and Drawings

The specification has been amended as suggested in the Office Action. A new Fig. 11 is submitted showing the reference numeral 48. In lieu of an additional correction to the drawings, the specification has also been amended on page 16, line 13 to correct a typographical error, substituting the proper reference numeral 160 for the incorrect reference numeral 169.

Response to the Rejection of certain claims and amendments to other claims.

None of the patents relied upon in this rejection discloses the fabrication of a duplicate denture from an original denture. The cited patents each relate to the use of a wax model or a model formed of another material such as gypsum to fabricate an original denture.

Furthermore, none of the references disclose or suggest the fabrication of a denture mold that can be stored and used later if the original denture is lost. Each of the references disclose construction of a mold that will be either used immediately, or within a few days, such as the mold of Diasti et al., which may be shipped to an off-site laboratory for fabrication of a new denture. The molds constructed in the references are not suitable for storage and later reuse. These prior art molds are fabricated from materials that are not suitable for storage and do not retain sufficient dimensional stability for fabrication of a new denture after storage. Molds made of a reversible or a irreversible hydrocolloid or alginate are subject to dehydration and can be quite porous. Diasti et al. uses alginate for the lower or exterior mold half. Furthermore, these materials are thermally sensitive and surface tension is believed to be a problem when the materials are poured around a positive master to form a mold. Gypsum, which is used in Bakanowski, is inflexible and easily cracked making it difficult to deflask a rigid original

denture from a mold fabricated from these materials. Dental stone, which is used to fabricate the upper mold in Diasti et al. has the same characteristics, which would be unsuitable for duplication of an original denture in the event the original denture is lost or misplaced. Surface tension is also a problem when either of these materials is in a liquid state. These materials may easily become lumpy and will therefore not accurately conform to the external shape of a denture.

Diasti et al. does not disclose a mold or a method for forming a duplicate of an original denture. The denture formed by the method of Diasti et al. is not identical to the original denture. As discussed with reference to Figures 21-24 adjustments are made to the wax model, which is then mounted on an articulator. The final denture is not identical to the original denture. Specifically the method disclosed in Diasti et al. can employ a worn denture for fabricating the wax positive, from which a new unworn denture is fabricated. The dental stone and hydrocolloid mold halves or negatives are not suitable for storage and subsequent duplication of an original denture. Furthermore the final denture is fabricated by the conventional lost wax method, which normally requires destruction of dental stone or hydrocolloid molds or negatives in order to remove the completed denture.

Pollock et al. employs a silicone material to form the mold surrounding the master, but Pollock et al does not disclose the fabrication of a molded denture that can be used in a patient's mouth. The molded device formed in Pollock et al merely comprises a model that can be mounted on an articulator or other holder for performing subsequent operations leading to the ultimate fabrication of an original denture. Note for example that the model formed in Pollock et al does not have a tissue side, which will fit within a patient's mouth. Note that the bumps formed on the model are intended to be mounted in splits that are used to secure the model to an articulator or other holder. See Col. 2, lines 46-49.

The objection to the Information Disclosure Statement is believed to be due to the inadvertent omission of US Patent 4,521,193 (Cialone), which was discussed in the specification as filed. Cialone does not teach the fabrication of a duplicate denture, because only a shell is fabricated and a liner must be added to this shell in order for the new denture can be used by its owner as a replacement for the original denture, and is

therefore not believed to be material to the claims pending in this application. Furthermore the prior art of record is believed to be at least equally relevant, and the Cialone reference is believed to be no more than duplicative of the art of record.

Although the substance of claims as originally presented are believed to be allowable over the art of record, a number of amendments are presented herein in an effort to expedite prosecution of this application.

The objections to claims 3, 21 and 27 have been corrected as suggested.

The substance of claim 5 has been added to claim 4. Claim 4 and the claims dependent thereon should therefore be in allowable form since dependent claim 5 was indicated as containing allowable subject matter.

The substance of claim 17 has been added to claim 16. Claim 16 and the claims dependent thereon should also be allowable since dependent claim 17 was indicated as containing allowable subject matter.

Claim 1 has been amended to recite that at least a portion of the mold is formed of a material having sufficiently permanent dimensional stability to retain its shape while the mold is stored so that a duplicate replacement denture can be fabricated upon loss of the original denture. The prior art discloses only molds formed for immediate use. These molds would not be suitable for storage and for use in fabricating a duplicate denture long after fabrication of the mold.

Claim 27 has been amended to recite fabrication of a mold containing two parts, and the flask is positioned *during fabrication of each mold part* so that air bubbles in the each mold portion or part, when solidified, are formed at locations spaced from the mold cavity. In the preferred embodiment, the flask is turned so that material forming each mold part is above the mold cavity or the original denture located in the flask during solidification. Air bubbles will then tend to migrate to a surface above and remote from the surfaces on which the mold cavity will be formed. In Pollock et al. the entire body of the mold is formed as the fluent molding compound solidifies as one integral mass. Air bubbles could be trapped along the lower surface of the master. Thus even if the master of Pollock et al. were a denture, which it is not, air bubbles would be formed along one surface of the mold cavity. If the teeth were on top as illustrated in the drawings of Pollock et al., air bubbles and voids would be formed along the portion of the mold cavity

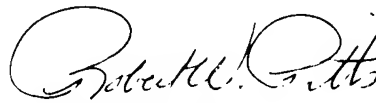
along which the tissue side of the denture would be formed. It is the tissue side of the denture, which will fit against the patient's mount and these deformities would cause sores because the denture would be ill fitting. Claim 27, at least as amended, should therefore be allowable over the art of record.

New claim 28 replaces original claim 21. New claim 28 contains limitations similar in scope to amended claim 16, but the sequence in fabricating the tissue side mold and the exterior side mold is reversed.

Applicant acknowledges and appreciates allowance of claim 15 and the indication of allowable subject matter in claims 3, 5, 9 and 17-19 in the initial official action. This application, as amended, is now believed to be in condition for allowance. Issuance of a Notice of Allowance in response to this amendment is therefore courteously solicited.

Respectfully Submitted:

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A handwritten signature in cursive script, appearing to read "Robert W. Pitts".

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